April 26, 1927. 1,626,252

J. ROSE

SPINDLE RETAINER

Filed April 3, 1926

Fig. 1

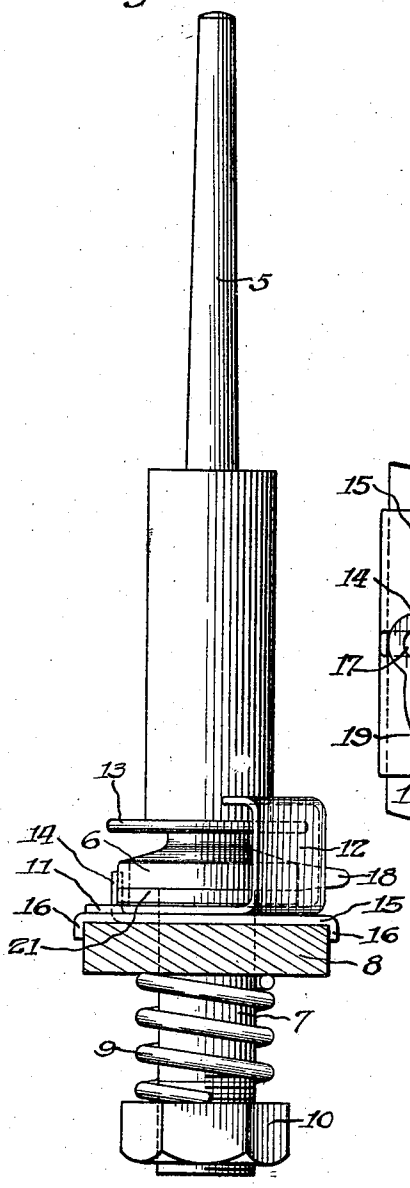


Fig. 2

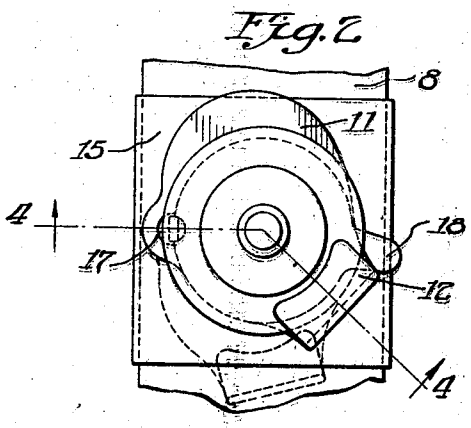


Fig. 3

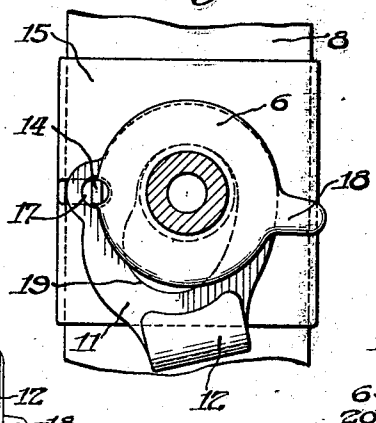
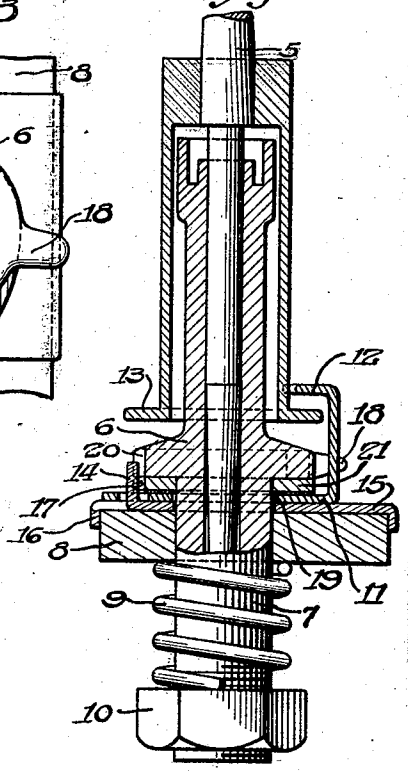


Fig. 4



Witnesses:
E. L. Niederhofer.

Inventor
James Rose
Glen and McCallister
His Attys.

Patented Apr. 26, 1927. 1,626,252

UNITED STATES PATENT OFFICE.

JAMES ROSE, OF OLEAN, NEW YORK.

SPINDLE RETAINER.

Application filed April 3, 1926. Serial No. 99,603.

This invention relates to spindles such as are commonly employed in spinning machines or the like and more particularly to devices for retaining such spindles upon their supports.

An object of this invention is to provide an improved device of the type set forth of such construction and arrangement that it can be easily and quickly moved into and out of operative position.

A further object is to provide a device of the type set forth which is simple in construction, easy and effective in operation and cheap to manufacture and assemble.

These and other objects which will be apparent to those skilled in this particular art are attained by means of this invention, one embodiment of which is illustrated in the accompanying drawing, in which Figure 1 is a view in side elevation of a well known form of spindle provided with a retainer constructed in accordance with one form of this invention. Fig. 2 is a top plan view thereof. Fig. 3 is a sectional view on the line 3—3 of Fig. 4 and Fig. 4 is a longitudinal sectional view on the line 4—4 of Fig. 2.

The particular embodiment of this invention which has been chosen for illustration is shown in connection with a spindle 5 of ordinary construction rotatably supported on a bolster 6 in the well known manner. The bolster is provided with a threaded extension 7 by means of which it is mounted on a suitable support 8 toward which it is yieldingly pressed by a coil spring 9 interposed between the support and a nut 10 threaded to the extension.

A simple and easily operated device is provided for normally retaining the spindle in operative position upon the supporting bolster. As illustrated, this device consists of a retainer or keeper plate 11 having a flanged finger 12 adapted to normally cooperate with a circular flange 13 formed on the associated end of the spindle for retaining the latter in position upon the supporting bolster. The retainer is eccentrically movable with relation to the spindle about a center which is offset with relation to the axis of the spindle. Preferably this is accomplished by loosely pivoting the retainer on a pivot 14 formed by a pin or lug extending upwardly from a wear plate 15 or the like clamped against the support 8 by the pressure of the spring 9. The plate 15 has flanges 16 engaging the shoulders of the support 8 to prevent relative movement therebetween, but obviously other means may be provided for accomplishing the same function. The pivot pin 14 is received within the offset opening 17 formed in the retainer.

Means are provided for determining the operative position of the retainer so as to prevent the finger 12 being moved into contact with the rotary spindle. As illustrated, this means consists of a projection or lug 18 formed on the bolster 6 and with which the finger 12 is adapted to engage when in its operative spindle retaining position, as shown in Figs. 1 and 2. The retainer 11 has an arcuate slot 19, see Fig. 3, through which the extension 7 of the bolster 6 extends and which permits the eccentric movement of the retainer into and out of spindle retaining position.

The bolster 6 is provided with a slot 20 which cooperates with the pivot pin 14 to prevent movement of the bolster and to maintain the stop 18 in the proper position. Obviously, other means may be used for this purpose. Preferably a fibre washer 21 or the like is provided between the bolster 6 and the retainer.

The operative position of the finger 12 is determined by the stop 18 which is so placed that the finger will not contact with the spindle although it overhangs the spindle flange 13 so as to retain the spindle in position. When it is desired to remove the spindle it is merely necessary to rotate the eccentrically mounted retainer about the offset pivot pin 14 to the position shown in Fig. 3 when the spindle can be removed. The spring 9 frictionally holds the retainer against unintentional movement so that it is yieldingly held in operative or inoperative position.

Although I have described a specific embodiment of this invention various changes, additions, omissions and substitutions will be apparent to those skilled in the art and can be made therein without departing from the spirit of this invention or the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. The combination with a spindle of a bolster on which said spindle is journaled, a retainer movable into and out of operative position for holding said spindle on

said bolster, an offset pin about which said retainer is eccentrically movable with relation to said bolster, a stop on said bolster for determining the operative position of said retainer and a slot in said bolster adapted to cooperate with said pin for holding said stop against movement.

2. The combination with a spindle of a bolster on which said spindle is journaled, a support for said bolster, a spindle retainer including a plate slidably mounted between said bolster and said support and provided with a finger for retaining said spindle on said bolster and a pin about which said plate is movable in shifting said finger into operative and inoperative position.

3. The combination with a spindle of a bolster on which said spindle is journaled, a support for said bolster, a spindle retainer including a plate slidably mounted between said bolster and said support and provided with a finger for retaining said spindle on said bolster, a wear plate adjacent said support and provided with a pivot pin about which said retainer is movable in shifting said finger into operative or inoperative position.

4. The combination with a spindle of a slotted bolster on which said spindle is journaled, a support for said bolster, a spindle retainer including a plate slidably mounted between said bolster and said support and having an opening adjacent the slot in said bolster, a finger on said plate for retaining said spindle on said bolster, a wear plate between said retainer and said bolster provided with a pivot pin extending through the opening in said plate and engaging the slot in said bolster, said retainer being movable about said pin in shifting said finger into operative or inoperative position and a stop on said bolster for positioning said finger in spindle retaining position.

In testimony whereof, I have hereunto subscribed my name this 31st day of March, 1926.

JAMES ROSE.